Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Modification of Parts 2 and 15 of the	)	
Commission's Rules for Unlicensed	)	ET Docket No. 03-201
Devices and Equipment Approval	)	
	)	

To: The Commission

COMMENTS OF ITRON, INC.

Itron, Inc. ("Itron"), by its attorneys, hereby supports the Petition for Limited Reconsideration ("Petition") filed by Cellnet Technology, Inc. ("Cellnet") in the above-captioned proceeding.[1] In accordance with Cellnet's proposals, the Commission should, on reconsideration: (1) require newly-certified devices that operate in the 902-928 MHz band, and that use digital modulation techniques, to observe duty cycle requirements and appropriate spectrum etiquette; and (2) mandate cooperative sharing among the users of the 902-928 MHz band.

I. INTRODUCTION

Itron is the nation's leading manufacturer and supplier of automatic meter reading ("AMR") technologies. Itron supplies its RF-based AMR systems to electric, gas, and water utility companies nationwide. Itron's AMR systems enable a utility to monitor business and residential meters from a remote location using a hybrid architecture that employs both licensed and unlicensed frequencies. Itron has provided nearly 40 million meter modules to more than 1200 utility companies nationwide, and

[1] *In the matter of Modification of Parts 2 and 15 of the Commission's Rules for Unlicensed Devices and Equipment Approval*, Petition for Limited Reconsideration, ET Docket No. 03-201 (filed Oct. 7, 2004) ("Petition").

Itron customers have invested over $2 billion in their AMR networks. Tens of millions of AMR devices already are deployed and operating in the unlicensed 902-928 MHz band. Itron's customers use their AMR networks to provide the public at large with services that the Commission has described as "essential."[2] As an extensive user of the 902-928 MHz band, Itron, like Cellnet, has an interest in ensuring that users share the band cooperatively and that the potential for harmful interference in the band be minimized.

II. THE COMMISSION SHOULD ADOPTI A DUTY CYCLE LIMIT AND/OR A SPECTRUM ETIQUETTE FOR THE 902-928 MHz BAND.

In the Notice of Proposed Rulemaking in this proceeding, the Commission asked whether it should adopt spectrum etiquette procedures for any unlicensed bands, including the 902-928 MHz band.[3] In response, Itron suggested that the Commission take steps to promote efficient use of the band and sharing on a non-interference basis.[4] Itron gave, as an example of the kind of measure that the Commission might implement, a requirement that devices operating with higher power levels in the 902-928 MHz band be required to scale back their duty cycles limits.[5] Alternatively, Itron suggested that the Commission establish a spectrum etiquette.

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[2] *See Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended; Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies; Establishment of Public Service Radio Pool in the Private Mobile Frequencies Below 800 MHz; Petition for Rule Making of the American Mobile Telecommunications Association*, Report and Order and Further Notice of Proposed Rule Making, WT Docket No. 99-87, 15 FCC Rcd 22709, 22711-12 (2000).

[3] *In the matter of Modification of Parts 2 and 15 of the Commission's Rules for Unlicensed Devices and Equipment Approval*, Notice of Proposed Rulemaking, 18 FCC Rcd. 18910, 18923 (2003) ("NPRM").

[4] *In the matter of Modification of Parts 2 and 15 of the Commission's Rules for Unlicensed Devices and Equipment Approval*, Reply Comments of Itron, Inc. (filed Feb. 9, 2003).

[5] *In the matter of Modification of Parts 2 and 15 of the Commission's Rules for Unlicensed Devices and Equipment Approval*, Comments of Itron, Inc. at 8-9 (filed Jan. 23, 2003).

The Commission, in its Report and Order in this proceeding, declined to adopt a spectrum etiquette or other sharing measures for the 902-928 MHz band.[6] It found no need for such requirements, based on the fact that the unlicensed bands, even though heavily used, have been characterized by "efficient use of available unlicensed spectrum," and that industry has employed "design flexibility … to develop efficient sharing and modulation schemes."[7]

Itron agrees that, as a general matter, the unlicensed bands have been characterized by an extraordinary degree of flexibility, innovation, and efficiency. The AMR industry has prospered thanks to the wisdom of the Commission's policies for unlicensed bands. But there are special circumstances in the 902-928 MHz band that are jeopardizing this historic success.

The 902-928 MHz band, which was the first of the ISM bands to be developed, initially was populated with low power devices, many of which have limited duty cycles. In recent times, however, increasing numbers of digitally modulated devices have been entering the band using maximum power and "always on" duty cycles. These newer devices have limited compatibility with the existing users of the band.[8] Like Cellnet, Itron finds itself having to devote resources to resolving coordination issues involving these digitally modulated systems.

These circumstances are tailor made for duty cycle limits and/or appropriate spectrum etiquette for devices employing digital modulation in the 902-928 MHz band.[9]

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[6] *In the matter of Modification of Parts 2 and 15 of the Commission's Rules for Unlicensed Devices and Equipment Approval*, Report and Order ("R&O"), 19 FCC Rcd. 13539 (2004).
[7] R&O, ¶ 54.
[8] Incompatibilities with WISPs are not as pronounced in the 2.4 and 5.7 GHz ISM bands, which are used by a variety of devices with higher data rates, higher power and longer duty cycles.
[9] Itron is opposed, however, to a spectrum sharing etiquette that would require unlicensed devices not employing digital modulation techniques to monitor spectrum for activity prior to commencing operation. Such a solution would require the design of complex "smart" transmitters and would be prohibitively expensive for high-volume, cost-cutting technologies such as AMR.

By adopting such measures, the Commission can strike a fair balance between the desire of broadband network operators to take advantage of the propagation characteristics of the 902-928 MHz band and the need to protect the many users that have already made a substantial investment in the band. For similar reasons, Itron supports Cellnet's request that the Commission confirm that operators of unlicensed devices operating under Part 15 of the Commission's rules should cooperate to limit interference.

CONCLUSION

Cellnet's Petition for Limited Reconsideration offers useful and necessary means for the Commission to promote spectrum efficiency by facilitating coordination among users of the 902-928 MHz band. Cellnet's proposals are necessary and appropriate, and Itron urges the Commission to adopt them.

Respectfully submitted,

ITRON, INC.

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December 6, 2004

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Comments of Itron, Inc. was sent by first-class mail, postage prepaid, this 6th day of December, 2004, to each of the following:

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/s/ Candace Gentry
Candace Gentry